Qt QTBUG-106707

WebAssembly: Can't use multiple canvases/screens for multiple QQuickViews

Details

Type:	Bug	Resolution:	Fixed
Priority:	P2: Important	Fix Version/s:	6.5
Affects Version/s:	6.3.2		
Component/s:	GUI: OpenGL, (1) Quick: 2D Renderer		
Labels:	None		
Platform/s:	WebAssembly		

Description

I'm trying to display two QQuickView objects on two canvases/screens, like so:

```
        return 1;
    }

    for(auto & screen : screens){
        qDebug() << screen;
    }

    QQuickView mainViewer;
    mainViewer.setScreen(screens[0]);
    mainViewer.setSource(QUrl(u"qrc:/wasm-multiwindow/main.qml"_qs));
    mainViewer.setResizeMode(QQuickView::SizeRootObjectToView);


    QQuickView secondViewer;
    secondViewer.setScreen(screens[1]);
    secondViewer.setSource(QUrl(u"qrc:/wasm-multiwindow/second.qml"_qs));
    secondViewer.setResizeMode(QQuickView::SizeRootObjectToView);

    mainViewer.show();
    secondViewer.show();

    return app.exec();
}
```

This code runs perfectly on Linux X11 target with 2 physical displays, but fails for webassembly:

```
QRhiGles2: Failed to make context current. Expect bad things to happen.
Failed to start frame
```

If I set the same screen for both QQuickView objects, there's no error, but only one of them is visible of course.

Also, I have no problem creating two QWidgets on two canvases:

```
// this works
#include <QApplication>
#include <QWidget>


int main(int argc, char *argv[]){
    QApplication app(argc, argv);

    const auto screens = app.screens();
    if(screens.size() < 2){
        qDebug() << "Expected at least 2 screens";
        return 1;
    }

    QWidget w1;
    w1.setScreen(screens[0]);
    w1.show();

    QWidget w2;
```

```
w2.setScreen(screens[1]);
w2.show();
```

I attached a minimal example with a modified HTML file containing 2 canvases.

I tested the code both in Firefox and Chromium.

Attachments

wasm-multiwindow.t
19 Sep '22 14:56 5 kB

Issue Links

is blocked by

QTBUG-80508 QSGGuiThreadRenderLoop uses single context for all windows CLOSED

mentioned in

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Gerrit Reviews

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Activity

Newest first

Morten Sørvig added a comment - 17 Apr '23 19:13 - edited

Fixed for Qt 6.5.

Note that the html setup has changed slightly, with Qt 6.5 it is preferable that the html container creates div elements instead of cavas elements (Qt will create an manage the canvases internally). For instance:

```
<div id="qtcontainer1" style="width: 100px; height: 100px"></div>
<div id="qtcontainer2" style="width: 100px; height: 100px"></div>
```

Morten Sørvig added a comment - 22 Sep '22 09:29

This looks to be a limitation of the current QSGGuiThreadRenderLoop implementation, see ~~QTBUG-80508~~

People

Assignee:

Morten Sørvig

Reporter:

Balázs Dura-Kovács

Votes:

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Dates

Created:

19 Sep '22 15:10

Updated:

17 Apr '23 19:13

Resolved:

17 Apr '23 19:13

Gerrit Reviews

There are no open Gerrit changes